

Scolytidae

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UNITED STATES DEPARTMENT OF AGRICULTURE

BUREAU OF ENTOMOLOGY

FOREST INSECT INVESTIGATIONS

COLEOPTERA - SCOLYTIDAE

SCOLYTUS

Hopkins U. S. Notes

SCOLYTUS PRAECEPTUS

Order: COLEOPTERA

Family: Scolytidae

Abies concolor

18807b Clover Creek, Oregon
Host-White fir

7/18/29

JAB, Colr.

18908e Beatty, Oregon

Mar/30

WJB, Colr.

32" windfall, rotten in middle, blown down sometime in summer
1929. Cambium still fairly fresh in patches and discolored,
moist.

SCOLYTUS TSUGAE

Order: COLEOPTERA
Family: Scolytidae

Tsuga Mertensiana

18916a Crater Lake, Oregon 5/22/30 WJB, Colr.

Tree was about twelve feet in height, foliage was very sparse and brown wood peckers stripping bark to get insects.

Adults bored under bark constructing small nuptial chamber in cambium. Then made gallery 1 to 4 inches in cambium around trunk at right angles to grain. Some galleries were free of borings others were completely filled. Eggs were laid singly in niches cut in sides of gallery. Larva worked away from gallery at right angles sometimes scoring wood, gallery terminating in pupal cell.

6/16/30 274
6/29/30 49
7/7/30 48
7/21/30 8

20537a Crater Lake, Oregon 10/4/31 FPK, WJB, Colrs.

Trees felled in June along power line right of way now infested. Bark of large logs to small diameter found heavily infested with this bark beetle. A few old parent adults found blocking the entrance hole, some dead in this position. Mostly in the larvae stage in inner and outer bark.

5/12/32	45	6/17/33	77
5/17/32	127	6/27/33	5
5/23/32	86	12/14/33	10
5/28/32	110		
5/30/32	34		
6/21/32	249		
7/3/32	10		
7/13/32	6		
2/15/33	36		

18956a Crater Lake, Oregon 6/20/31 WJB, Colr.
10" tree attacked in fall of 1930-needles fading-cambium moist bark tight.

5/9/32	81
5/12/32	46
5/17/32	30
5/23/32	4
5/28/32	4

18851a Crater Lake, Oregon 6/14/31 JAB-WJB-F, Colrs.
Small tree, 10", fading, cut down and examined; part brought in for rearing.18950a Crater Lake, Oregon 6/16/31 WJB, Colr.
Tree one of a group of five killed in summer of 1930. Cambium moist foliage all fallen, tree had the appearance of being dead for sometime.

6/27/31	49	5/12/32	1
7/3/31	14		
7/10/31	8		
1/26/32	7		
4/20/32	0		

SCOLYTUS VENTRALIS

Order: COLEOPTERA
Family: Scolytidae

Abies Magnifica

- 18914a Crater Lake, Oregon 5/9/30 WJB, Colr.
A 28" D. B. H. tree killed in late summer of 1929. Needles
almost brown cambium still very fresh green in most places.

6/30/30	18
7/1/30	9
7/7/30	15
7/21/30	5
6/4/31	21
1/26/32	10

Case closed 2/16/33

Adults bored through bark into cambium and surface of wood making small nuptial chamber then constructing frass free gallery (scoring wood heavily), around trunk at right angles to grain. Eggs were laid singly in niches cut into gallery wall. Larva worked out at right angles to gallery, working in cambium and bark pupal cell at end of gallery in outer bark.

- 18961d Crater Lake, Oregon 10/9/32 WJB, Colr.
24 D. B. H. tree-one of a group of five killed by insects in summer of 1932. Foliage yellow starting to fall; bark tight; cambium green in spots. Specimen selected about 40' ground.

6/17/33	1
12/14/33	1

- 18962c Crater Lake, Oregon 10/9/32 WJB, Colr.
A twenty four inch tree (one of a group of five killed by insects in summer of 1932. Foliage yellow starting to fall. Bark tight, cambium green in spots. Specimens selected on trunk about 28' from ground.

6/17/33	6
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Case Closed 12/14/33

SCOLYTUS VENTRALIS Lec

Order: COLEOPTERA

Family: Scolytidae

Abies Grandis

- 18162a Northport, Wash 7/22/29 F. P. Keen, Colr.
Trees killed or girdled. Found adults attacking and laying
eggs in badly damaged (defoliated) tree.
- 20545a McNary Farm, Salem, Ore. 8/24/32 F. P. Keen, Colr.
Tree on lawn heavily infested with aphis. Honeydew abundant.
Sawfly ovipositing. Trees in wood lot killed by Scolytus
ventralis. Aphis probably Dilachnus occidentalis (Davidson)
- 20555a Barton, Oregon 9/7/33 J. A. Beal, Colr.
Found killing white fir near summer resorts on Clackamas Riv.
Occurs only in larval stage-mature.

NOTES ON
Scolytus ventralis Lec.

Distribution: In Oregon and Washington this species ^{follows the} ~~ranges along the eastern slope of the Cascade Range following the range of white fir (Abies grandis (A. concolor)) . So far we have not found it west of the divide except in the southern Oregon region where the ponderosa pine and fir typ extends over into the Rogue River drainage. Our collections are from southern Oregon, (Ashland), Crater Lake Park and Northport, Washington, Salem, Oreg.~~

Hosts: Abies grandis (A. concolor); Abies magnifica shastensis.
Some old records from Ashland record it from Pseudotsuga taxifolia but these have recently been referred again to Blackman and I believe he is placing them in a new species.

Damage: This insect caused heavy losses of white fir in southern Oregon (Lake and Klamath Counties) in 1920 and 1921. In some areas fully fifteen percent of the white fir stand was killed during this outbreak. Following this epidemic only sporadic attacks were noted during the subsequent years and only a moderate amount of damage was sustained.

For the past three years, concentrated group killing of Shasta red fir, as a result of attacks by this beetle, have occurred in Crater Lake National Park. In this case the damage is not scattered throughout the stand but is concentrated in small groups where seven to ten trees are killed in a single season. In this case these beetles are assisted by Pseudohylesinus grandis, Pityo-ktelines elegans and Tetropium abietis.

Seasonal History: In Oregon and Washington there is apparently only one generation a year, or one in two years due to retarded emergence. Adults are found attacking and laying eggs during July. These reach the full grown larval stage by fall when further development is halted by cold weather. Winter is passed in the larval stage in the layers of inner bark. The parent adults usually die during the first winter. The following spring activity is resumed, pupation and emergence of new adults starts in June at the lower elevations and during July and August at the higher levels. All of the brood do not emerge the first season but continue to feed in the bark and emerge during the second summer. A section of Shasta red fir attacked by these beetles in the summer of 1929 was placed in rearing. The first emergence of new adults took place in June and July of 1930. An equally heavy emergence took place the following year during the summer of 1931.

Portland, Oregon.
Dec. 9, 1932.

-- F. P. Keen,
Entomologist.

Copy for Keen

342.
December 16, 1932

Mr. J. M. Miller,
Berkeley, Calif.

Dear Miller:

Craighead has shown me Keen's carbon of a letter to Struble commenting on the distribution of S. ventralis. Thinking it may be of interest to you, I have summarized the states and host plants for this species, as shown on the specimens in the collection, as follows: British Columbia, Washington, Oregon, California, Idaho, Montana, Utah, Arizona, New Mexico: Abies concolor, grandis, lasiocarpa, Pseudotsuga taxifolia, Picea engelmannii, Tsuga mertensiana.

Sincerely yours,

M. W. Blackman,
Senior Entomologist

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